



# Beyond apprenticeships: decoding and progressing technical education opportunities in England from Levels 2 to 5

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Conceptual paper series - No. 5



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This work has engaged him in detailed discussions with regulatory bodies such as IfATE and Ofqual, a range of employers and representative bodies, as well as numerous providers across higher and further education. He is passionate about raising the quality and profile of technical education in the UK, and advocates that it must be positioned as a credible and distinct alternative to both academic and apprenticeship pathways.

Before joining NCFE, David spent ten years as a secondary school science teacher and head of department, with experience in delivering both academic and vocational qualifications at Levels 2 and 3.

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# 01. Introduction



The arrival of the new Labour government in July 2024 has seen workplace skills (or the perceived lack of them) again rise up the English policy agenda. At every stage of the skills journey (technical education, workplace application, and associated productivity) and at every place and level of skills production and usage (workplace, local, regional and national), the UK is seen to be falling short. This is the message that infuses the first report of a new executive body – Skills England – which has been charged with upskilling the economy in the coming decades and addressing the ‘laggard’ status of England’s business and public services (Skills England, 2024).

At first glance this seems a paradox. From the Great Exhibition of 1851, and across the decades and centuries that have followed, technical education and training have developed in response to the ongoing perception that the skills needs of business and industry must be addressed if we are to remain globally competitive (see Evans, 2016). We have lived through significant changes, and numerous reports and white papers in recent decades and still, when compared to other countries, the UK is reported to be underperforming. Perhaps, then, our national underperformance is less a paradox and more a ‘wicked problem’ (see Mertens, 2014; Rittel & Webber, 1973); something that cannot be easily understood, unpicked or addressed?

With this complexity acknowledged, our focus here is on one element of the wider skills landscape: **(non-apprenticeship) technical qualifications in England from Levels 2 to 5**. As we await further policy announcements, we believe it is useful to consider this *other technical qualifications* pipeline to identify how they might be used to address ongoing national issues of underperformance. While apprenticeships are often cast in the leading technical education role, we argue that these other qualifications have more than a bit part to play in the future English technical education system. Our aim, in taking this focus, is to support Skills England to avoid the trap of what has been termed the ‘clean-slate’ approach to vocational reforms; where ministers appear to have ‘ignored, or been ignorant of, tried and tested programmes that would have provided a sounder and more economical foundation for necessary further development’ (Hodgson, 2015, p. 84).

In the discussion that follows we reflect on some of the lessons that can be learned if we focus on these ‘other’ qualifications and conclude with a series of level-specific conclusions and recommendations.



## 02. Looking back to the future

Education policy is often said to be cyclical in nature; wait long enough and old ideas will resurface under new monikers and be presented as fresh solutions to the sector’s problems. As we have progressed through what is arguably the most substantial post-16 reforms in a generation, it is difficult not to journey back over the most recent four decades of change and ask ourselves whether we have seen any of the current thoughts about qualifications before and, if yes, what can we learn about the failures (and opportunities) to inform our next steps.

Where to begin? Our first port of call is the De Ville Report (De Ville, 1986), which famously described the vocational qualifications landscape as a ‘jungle’. Key recommendations included:

- setting up an independent body to oversee vocational qualifications - the National Council of Vocational Qualifications (NCVQ)
- developing a new national framework of standards for occupational competence.
- bringing employers and industry bodies in to develop these standards
- creating a new set of vocational qualifications that map to these standards – National Vocational Qualifications (NVQs).

You would be forgiven for thinking that these look surprisingly familiar. And we are sure you, like us, are left asking why and how some 25 years later the Wolf Report identified a vocational educational system that was both complex and opaque (Wolf, 2011). There are a number of potential explanations for this, some of which we cover briefly below.

### Complexity and churn?

The first, and perhaps most important, factor that arguably impacts on continuing calls for effective reforms, is that the technical sector is both complex and changeable. The apparent repeated desire to clearfell the jungle of qualifications rather than undertake slower, considered ecosystems management, appears to have hampered technical education’s ability to build and signal its status and worth in the educational landscape.

Norris and Adam (2017) identify four key reasons for this:

1. competing and often conflicting ideas about what the sector is, and is for
2. the high levels of discretion that ministers have to make changes to the system
3. a tendency to make changes before organisations have time to bed in and make progress on reforms
4. poor levels of institutional memory in Whitehall.

They go on to note that ‘some have suggested... [the further education sector] has been subject to the fastest changing set of institutional arrangements in the developed world’ (p. 9). The reality of this statement is explored by City & Guilds which notes that since the early 1980s, the vocational education ‘policy area has flipped between departments or been shared with multiple departments 10 times’, produced ‘13 major Acts of Parliament’, and seen ‘61 Secretaries of State’ responsible for skills policy (2014, p. 1). This has been recently updated in a report which commits twenty-three detailed pages to ‘The Legacy of Policy Churn in Skills and Education’ (Lifelong Education Institute and City & Guilds, 2024).

But why does this matter? Field argues that this complexity and churn undermine the *signalling value* of technical qualifications. He argues that ‘effective signalling depends on simplicity and stability in qualifications and programmes over time’ (2024, p. i832), allowing employers to trust these signals as reliable. When compared to A Levels, which have remained largely unchanged since 1951, technical education’s signalling value is significantly impeded.



## Underfunded and undervalued?

Of course it is very easy, and often an oversimplification, to connect under investment with lower reputations and poorer performance. The reality is that education funding always has an opportunity cost somewhere else in a government's budget. Determining the 'correct' level of funding when there are so many competing demands can be difficult. This notwithstanding, a useful way to judge whether further education is relatively 'underfunded' is to consider its funding in relation to spending on general (academic) education.

Figure 1, taken from OECD *Education at Glance* (2023) helps us with this. With our vocational education lenses on, the bottom right quadrant is of interest, as the countries who sit in this quadrant spend more on vocational education than general academic education. On average, across OECD countries, countries spend around 15% more per upper secondary technical student than on their academic counterparts. And in countries with recognisably strong technical education systems, such as Austria, Germany and the Netherlands, the differential is larger. The UK invests significantly less in vocational education than the majority of its European counterparts and spends 33% less per student for those in technical programmes than those in academic programmes.

Importantly, value is not just an economic term. If a dominant cultural narrative were to exist that particular types of 'academic' education at certain institutions are more valuable, or that certain *facilitating* subjects are helpful for successful entry to these places (see Russell Group, 2024), then put simply, not all academic UCAS points (Level 3) and academic credit (Levels 4 and above) will be judged equal. As Cleaver (2023) argues, 'Hierarchy and prestige and, along with this, differential expectations for different social groups, remain key barriers to technical education claiming its equal place in the contemporary English higher education landscape'. In short signalling that A levels and academic degrees are a highly trusted currency and the key ingredients for social and economic mobility, not only adds to their longevity and stability, but also their cultural narratives of worth.

Wolf (2023) makes this clear, noting that to rank qualifications in this way, by default leaves vocational learners and qualifications in the lower half of the table. This concern has underpinned ongoing calls for *parity of esteem*; something that Relly (2021) argues is mentioned somewhere in every publication relating to vocational education in the post-war period. Yet the goal of parity has been noted as a 'completely misguided objective' in an English education system 'bedevilled by well-meaning attempts to pretend that everything is worth the same as everything else' (Wolf, 2011, p.8).



“

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Arguably this is also at the root of concerns about the 'academic drift' of vocational qualifications (Raffe & Spours, 2007). If, to gain parity, technical qualifications attempt to mimic the qualifications that have signalling value, then they are likely to become more academic. In his foreword to the Wolf Report the then Secretary of State for Education Michael Gove noted that searching for parity has 'meant making what is practical more academic, to the detriment of both' (Wolf, 2011, p.4). Yet paradoxically, in the following year (2012) a schools' league table metric recording how many students progress from individual schools to Russell Group universities was introduced by Gove, which officially labelled certain types and places of education as more important than others in English schools<sup>1</sup>. It is therefore not a surprise that 12 years on, one of the 12 national risks that form the Office for Students' Equality of Opportunity Risk Register notes that certain students may not be able to apply to certain types of provider despite being qualified, due to family circumstances, perceptions of the provider, or the mode of study of the courses on offer (OfS, 2024).

In short, we would argue that both funding and other measures of value are key factors which have impacted on the growth of a 'missing middle' of technical learners leaving with Level 4 and 5 qualifications (Field, 2018). Phoenix (2018) shows that between 2012/13 and 2016/17, Level 4 and 5 qualification enrolments declined by 40%. While some of this can be attributed to the 2013 policy mandate that trainee nurses should take full degrees, further explanation can be found in the removal of undergraduate student number controls in 2015-16, thereby also removing the incentive for higher education providers to offer shorter courses to boost their fee income (Phoenix, 2018). In blunt terms, why advertise for courses that will only provide two years of student fee income when you could ask students to commit to three, particularly when this qualification is commonly perceived to hold the most signalling value in our education and work cultures.

## Are we (technically) together?

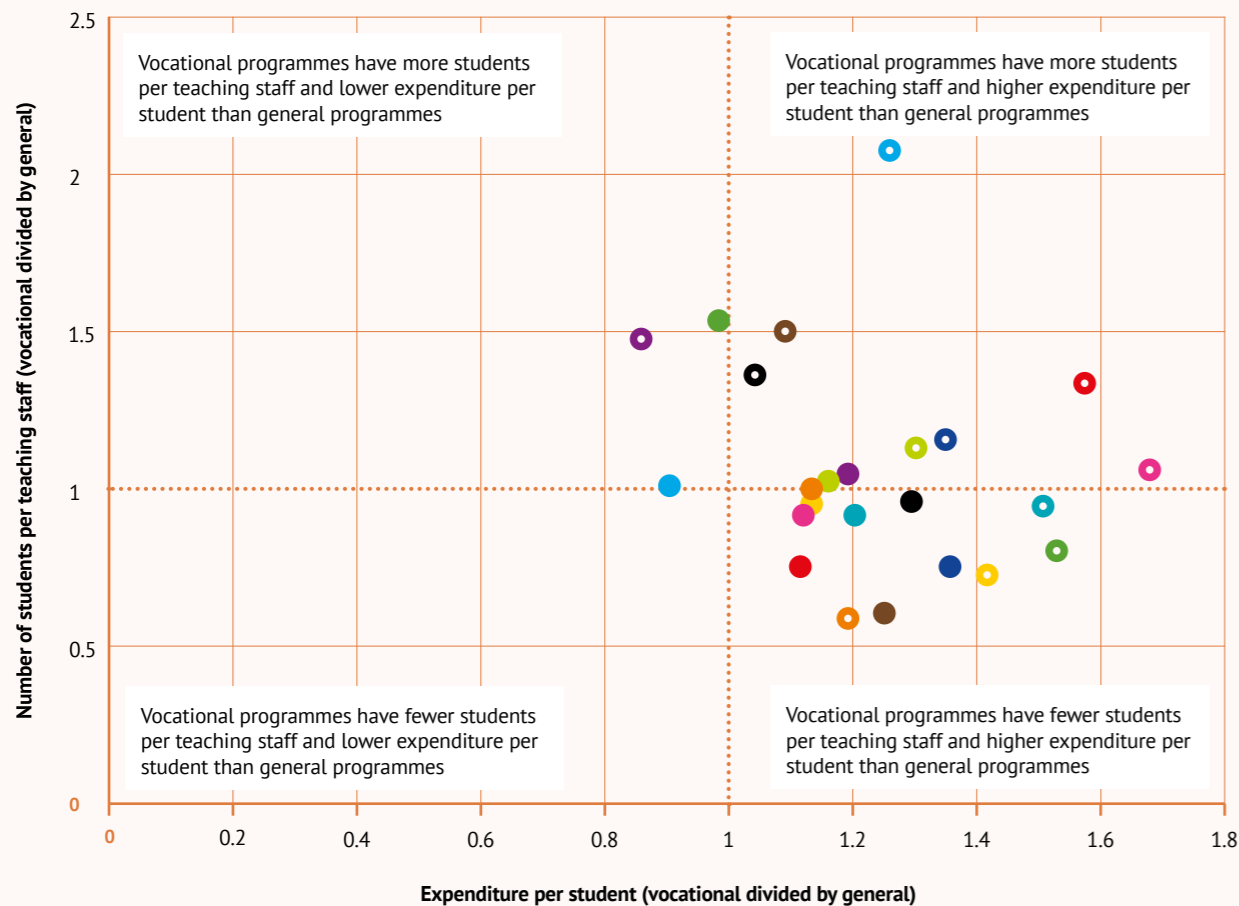
A final important factor highlighted by the literature is a lack of effective collaboration between industry, educational providers and government – the so-called social partnerships necessary for the success of this type of learning. The most salient obstacle [to progress in the UK] is the relative absence of the social partnership arrangements that typically play a large role in some of the strongest technical education systems' (Wolter and Ryan, 2011, cited in Field, 2024, p. i832). Hodgson outlines that providers are rarely present at early policy discussions, and despite regular policy statements about the importance of putting employers in the 'driving seat', the reality is that a collaborative approach to and responsibility for the planning and creation of technical education has never fully been realised (Hodgson, 2015, p. 75).

These issues were further highlighted in a recent research report on the quality management of English degree apprenticeships (Cleaver, 2022). Providers from the study sample noted that they were largely absent from early employer-led trailblazer groups formed to develop occupational standards. This in turn led to 'differing understanding and expectations of what can and should be delivered as part of a degree programme and getting the right balance between meeting immediate workforce skills needs while supporting the development of apprentices' longer-term learning, personal and career development skills' (Cleaver, 2022, p.7). Respondents also noted that this could be further exacerbated during programme delivery if employer-provider relationships were not satisfactorily established or maintained. Perhaps the most salient lesson that the research identifies is that as a relatively new form of apprenticeship provision, there is 'little precedent about what good looks like or what service levels expectations might be reasonable'. This in turn, adds to the complexity of stakeholder experiences as differing expectations and approaches play out in real time.

<sup>1</sup>. To note, this metric will no longer be published (see Department for Education, 2024d p. 4) although there is interestingly no explicit commitment to stopping the collection of the information itself.

**FIGURE 1. Differences by programme orientation in expenditure per full-time equivalent student and number of students per teaching staff (2020)**

Source: OECD (2023)



**Country & Notes**

- Latvia
- United Kingdom
- Denmark
- New Zealand
- Finland
- Estonia
- Netherlands
- Germany
- Chile
- EU25 average
- OECD average
- Slovenia
- Czech Republic
- Hungary
- Austria
- Lithuania
- Slovak Republic
- Poland
- Türkiye
- Belgium
- Spain
- Greece
- Mexico
- France



### 03. Lessons learned?

**Please note** that this section discusses policy plans that were in train until July 2024. At the time of writing the status of these plans is uncertain. On 24th July 2024, the Secretary of State for Education announced a pause and 'focused review' of the post-16 qualification reforms at level 3 and below, with plans to conclude this review by December 2024 (UK Parliament, 2024). We therefore discuss these plans here to inform rather than to predict future changes.

**B**efore we turn to our recommendations for the future, it is useful to reflect on the plans for non-apprenticeship technical qualifications that were in place before the new UK Government took office in July 2024. In particular:

- What was planned next in terms of (non-apprenticeship) technical education?
- How had learning from the lessons and insights discussed in Section 2 of this paper, informed these plans?

The plans that were underway until July 2024 were informed and driven by two key reports: the Wolf Report (Wolf, 2011), and the subsequent Sainsbury Review (Independent Panel on Technical Education, 2016). This latter report crucially called for a clear delineation between *academic* and *technical* education, and the removal of the nebulous terminology of vocational. And, while initially focused on qualifications at Level 3 and below, a third report – the Augar report (Wolf *et al.* 2019) on post-18 education – resulted in these reforms extending to include qualifications at Levels 4 and 5.

Before focusing on the detail of the plans, we must start with a short note on nomenclature in the regulated qualifications landscape. Many people erroneously use the terms 'BTEC' or 'applied general' as a proxy for all vocational qualifications, which are a brand name and a Level 3 performance table category respectively and represent only a fraction of the whole. The correct terminology for a non-general qualification (i.e. not a GCSE or an A Level) is a vocational and technical qualification (VTQ). We will be using this term to refer to these qualifications in the remainder of this paper. Further information about VTQs can be found on the Skills for Careers website (Department for Education, 2024a).

#### A new binary divide?

What did the planned reforms look like? The (then) government set out plans for extensive reforms from Level 5 and below, with slightly different parameters for the higher education space. At Level 3 and below a 'clean slate approach' was to be adopted, with funding removed from all VTQs which would be replaced over time with new reformed qualifications. At Levels 4 and 5, the planned changes centred on the 'quality marking' of existing and new high quality technical qualifications to address the 'missing middle'.

In line with the recommendations in the Wolf Report, the then government therefore created plans for a new binary system of qualifications from which learners could progress successfully to one of two destinations: higher education or skilled employment. These two progression outcomes in turn would form the basis for the two newly defined and separate educational types:

- **Academic education** - courses whose primary purpose is the progression to higher education.
- **Technical education** - courses whose primary purpose is progression to skilled employment or further technical training.

It should be noted that at Level 3, A Levels were not the only proposed option for learners on academic pathways. Alternative Academic Qualifications (AAQs), designed to be the same size as one A Level, but in vocational subjects, would be directly analogous to current applied general extended certificates (the most common of which are BTEC National Extended Certificates). The plan was that they would continue to be funded in mixed programmes with A Levels. As this paper focuses on technical qualifications, we will not be discussing AAQs in depth.

With reforms due to conclude in 2028, the plan was that all English Level 2 to Level 5 non-apprenticeship technical qualifications would be expected to align to, and have more in common with, Level 2 to Level 5 apprenticeships than with any similar level academic qualifications. This directly follows the Sainsbury Review classification of technical qualifications and apprenticeships as one 'technical option', and the recommendation that 'only high-quality technical qualifications which match employer-set standards are approved' (Department for Business, Innovation & Skills and Department for Education, 2016 p.8).

These new technical qualifications, referred to as Technical Occupation Qualifications (TOQs), were expected to align to the knowledge, skills and behaviours (KSBs) of a registered occupational standard, co-designed with employers and, at the time of writing, approved by IfATE (Department for Education, 2024b). Within the TOQ qualification group, four common approval categories would be available across most level of study (see Figure 2):

- Occupation Specific qualifications – which map to the knowledge, skills and behaviours (KSBs) in *one* occupational standard:
  - **occupational entry competence:** qualifications which deliver the KSBs that employers have identified as sufficient for an individual to enter skilled employment, with a need for further learning or training in work to reach occupational competence.
  - **additional specialist competence:** qualifications which deliver KSBs that build on occupational entry requirements, so an individual can work in a specialist area of an occupation.
- Broader skills qualifications – which map to KSBs in *multiple* occupational standards:
  - **occupational progression competence:** qualifications which deliver KSBs that do not amount to entry competence within an occupational area but may support progression within one or more occupations.
  - **cross functional competence:** qualifications which deliver KSBs that can be found within a range of occupations, so that an individual can perform more specific cross-occupational functions.

These planned categories are not entirely new, as they derived from approvals tests documented in the Apprenticeships, Skills, Children and Learning Act 2009 (UK Parliament, 2009: section A2D5; see also interpretations in IfATE, 2024a, 2024b and Ofqual, 2023). Further, two of these categories – Occupational Entry and Occupational Progression - are probably the most important to focus on here, as they would have arguably been the most likely to include large numbers of more substantive technical qualifications. By ‘substantive’, we mean a full-time learner would take at least a year to complete the qualification, and more likely two years at Level 3. With this in mind, where do T Levels (Level 3) and HTQs (Levels 4 and 5) fit into this jigsaw?

T Levels, designed specifically for 16–19-year-olds as an alternative to A Levels, are a Level 3 technical qualification that consists of a core general component and an occupational specialism that fully maps to an occupational standard. They essentially exist as a ‘special’ branded type of Occupational Entry qualification in priority occupational routes such as Health and Science, Engineering, and Digital.

Similarly, HTQs are newly branded existing Level 4 or 5 Occupational Entry qualifications. The majority of those currently approved are BTEC Higher National Certificates and Diplomas or Foundation Degrees.

Figure 3 outlines a learner’s substantive options in the technical education space, if qualification development were to continue travelling on the planned tracks.

**FIGURE 2: Technical Occupational Qualification categories across levels 2-5**

	Occupational entry	Additional specialist	Occupational progression	Cross cutting
Level 2	✓	✓	✗	✓
Level 3	✓	✓	✓	✓
Level 4	✓	✓	✓	✓
Level 5	✓	✓	✓	✓



Importantly, the flagships of this planned technical education landscape – apprenticeships, T Levels and HTQs – are all occupation specific, mapping directly onto individual standards.

One potential consequence of this move is that, just as in the past commentators identified ‘academic drift’, this new drive towards occupational specificity would have the potential to instigate a form of ‘apprenticeship drift’, where qualifications simply replicate the outcomes of an apprenticeship and do not offer a distinct option. The focus on occupation specific KSBs also leaves two questions outstanding:

- *what are Occupational Progression qualifications and what are their purpose and value?*
- *why are Occupational Progression qualifications not being offered at Level 2?*

Following plans to their logical end, once legacy VTQs become defunded at level 2, learners would only have occupation specific options. Yet, as we discuss in the section that follows, general technical skills are arguably an equally important ingredient in the new technical education landscape – particularly at Level 2.

### The case for general skills

Evidence indicates that more generalist qualifications and skills remain both useful and relevant. Here we briefly consider evidence in relation to learner and employer demand and value for money (albeit measured one dimensionally, in relation to the economic benefits of qualifications for learners).

### Learner demand?

If we cast our minds back to 1991, GNVQs were created as an alternative to NVQs as a direct recognition of the fact that many post-16 vocational learners did not have a fixed plan for their careers:

*‘[m]any young people want to keep their career options open. They want to study for vocational qualifications which prepare them for a range of related occupations but do not limit their choices too early. Some want to keep open the possibility of moving on to higher education.’ (Department for Education and Science, 1991, p. 18).*

The Education and Training for the 21st Century White Paper went on to clarify that GNVQs should ‘cover broad occupational areas’, ‘require the demonstration of a range of skills’, and be ‘sufficiently distinctive from occupationally specific NVQs’ (Department for Education and Science, 1991, p. 19).

**FIGURE 3: Mapping learners’ technical options in 2024**

	Occupation Specific KSBs	Broader KSBs
Level 2	Apprenticeship Occupational Entry Qualification	
Level 3	Apprenticeship T Level/Occupational Entry Qualification	Occupational Progression Qualification
Level 4/5	Apprenticeship HTQ	Occupational Progression Qualification



This to some extent mirrors the ongoing flexibility associated with academic qualifications which, through subject combinations and associated transferable skills, are perceived to keep career options open much longer. For example, History A Level and associated undergraduate degrees are often cited as leading to a wide range of occupational destinations due not to the content studied, but the skills gained through those studies including analytical, research, communication and negotiation skills (see for example AGCAS, 2023).

But is there ongoing evidence of need or desire for this flexibility of outcome amongst technical learners? Evidence provided by Dickinson (2019) indicates yes during the post-16 educational stage. Drawing on data from the User Insight Research into Post-16 Choices report by CFE Research (2017), he notes that compared to seven per cent of further education (academic) learners, 21% of those on further education (technical) routes were unsure about what to study after Year 11 (Dickinson, 2019: p.30). This sense of uncertainty, and an associated need for flexibility, is further supported by analysis of Longitudinal Study of Young People in England (LSYPE) cohort data which found that pathways are not strongly pre-determined at age 16, with those in the study sample having the potential to change their post-compulsory Level 3 studies up to three years after starting (Dickerson, Morris & McDool, 2020, p. 328).

If we turn our focus towards occupational aspirations and plans, evidence from a study of the first two cohorts of T level learners indicates significant levels of uncertainty across three different learner groups (T Level learners, A Level learners and Level 3 Technical learners) about future occupational aspirations or plans (see Figure 4). Focusing our attention particularly on the Level 3 Technical group, a significant proportion (just under half, 47%) of this group answered that they were considering a few occupations or were not sure about future work plans (NatCen Social Research & NFER, 2022a). It therefore seems sensible to suggest that a broader, more flexible technical offer would both be valued by and meet the needs of this group.

T Levels may well be a good option for those learners who have a destination in mind. The first T Level destination report states that 'of all learners who completed the T Level, most (75%) were studying or working within the general field of their T Level' (NatCen Social Research & NFER, 2024, p. 19). This is an encouraging statistic, but it is not necessarily an endorsement of the occupational specificity of the course. In fact, only 13% of learners were actually working in the occupational specialism they studied for. This therefore suggests that the core general component off the T Level may well hold as much if not more importance than the specific skills gained from the occupational specialism, for the majority of learners at this level.

**FIGURE 4: Learner survey results to the question: Before starting course, how sure were you about the type of occupation you wanted to find work in?**

Source: data derived from NatCen Social Research & NFER, 2022b, Table ALL013

	T Level	A Level	Level 3 Tech
	%	%	%
I was certain about the occupation	31	17	27
I was quite sure about it	31	23	26
I was considering a few occupations	26	35	30
I wasn't sure	12	24	17
n =	2,391	672	2,558



### Employer demand?

Beyond licence to practise occupations, only a minority of roles currently stipulate a formal 'entry' qualification. In an analysis of over 21,000,000 job adverts, to identify the skills that UK employers require for certain roles, Brown & Souto-Otero show that 'formal academic credentials play a relatively minor differentiating role in the UK labour market, as the majority of employers place greater emphasis on job readiness' (2018, p. 95, see also Figure 5). Thus, while we are certainly not dismissing occupationally specific technical qualifications out of hand, this content analysis of adverts certainly indicates that employers continue to see a broad spectrum of employability skills as important.

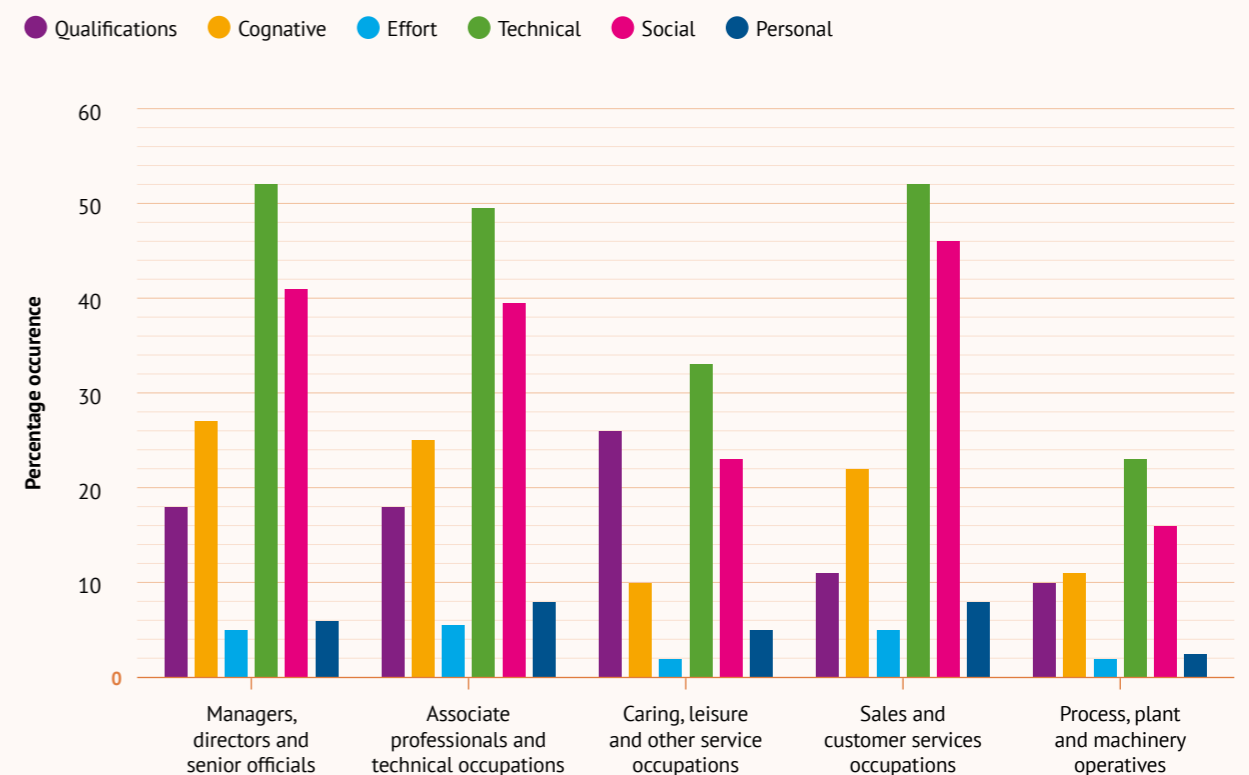
This reflects wider evidence, often produced on an annual basis about the top workplace skills that employers are seeking. Across all target occupations, professional networking site Linked In lists the most in demand skills for 2024 as: communication; customer service; leadership; project management; management; data analytics; teamwork; sales; problem-solving and research skills.

As the first Skills England report states, drawing on the work of Dickerson *et al* (2023), '...transferrable, essential employment skills are projected to be most in demand by 2035, with six key skills highlighted: communication; collaboration; problem-solving; organising, planning and prioritising work; creative thinking and information literacy' (Skills England, 2024, p. 38)

Further, as Brodnitz (2024) positions, 'as organisations come to grasp the full extent of what AI *can* do, they're also coming to terms with all it *can't* do: those tasks that require uniquely human skills that all businesses need'. These are termed 'mission critical soft skills', as more than half of Linked In members<sup>2</sup> jobs are likely to be impacted by AI.

In short, with future roles and skills unpredictable, the building of foundational cognitive, interpersonal, leadership and digital skills (see for example Dondi *et al.*, 2021) is argued to create greater capacity to be flexible in the face of change. This has also been termed 'the reskilling revolution', aligned to the recognition that a quarter of jobs are expected to significantly change and require new skills sets in the next five years (World Economic Forum, 2020).

**FIGURE 5: Job advert characteristics for selected occupations (redrawn from Brown & Souto-Otero, 2018)**



2. Linked In membership stood at 990 million members in 2023, see Bashar (2023)



### Qualification premiums and social exclusion

Finally, what about the economic returns of occupational entry qualifications for the learner? While a significant amount of media and government airtime has been given to discussion of the *graduate premium* - the economic benefits of completing a undergraduate degree in England when compared to individuals without an equivalent qualification - this has arguably been prompted by concerns about or justifications for the costs, and for many the associated personal debt, that accompany the learning experience (see Whelton, 2024). In contrast the premiums associated with Level 3 study have received less coverage, perhaps due to the fact that Level 3 education is largely free at source for those under 19. However, in a report on the labour market value of higher and further education qualifications, the Social Mobility Commission notes that while 'it is not straightforward to summarise earnings returns [for Levels 3, 4 and 5], especially as a proportion of people with an FE qualification pursue HE studies [Level 6]. In general, returns increase with higher levels and are higher for apprenticeships than equivalent classroom-based qualifications.' (Social Mobility Commission, 2023, p. 8)



**...using data taken from the Labour Force Survey (LFS) from the period 1997-2015, they found that this earlier set of occupational specific qualifications (i.e. NVQs) consistently performed worse in terms of economic return when compared to their general qualification counterparts.**

This notwithstanding, and the fact that it is too early to consider the economic returns to be gained from T Levels, we can reflect on insight provided at an earlier point in time, before the new technical education landscape evolved in response to the Sainsbury Review. McIntosh & Morris (2016) in an analysis of different labour market returns for a number of extant vocational qualifications such as NVQs, BTECs and GNVQs, note that (similar to the later analysis of the Social Mobility Commission) marginal returns are found to be greater the higher the level of study undertaken. However, perhaps most relevant to our own focus in this paper, using data taken from the Labour Force Survey (LFS) from the period 1997-2015, they found that this earlier set of occupational specific qualifications (i.e. NVQs) consistently performed worse in terms of economic return when compared to their general qualification counterparts (see Figure 6).

Further (and perhaps contentiously), if we continue down the route of denying those who take technical education opportunities to develop broader academic and theoretical skills and knowledge, then we are in danger of reproducing social inequalities and exclusion (Wheelahan, 2015). Taken together, the recent focus on the 'missing middle' of Level 4 and 5 technical learners (Field, 2018), the announcement of reductions in the funding of Level 7 apprenticeships (Department for Education, 2024c) and the initial rejection of doctoral Level 8 apprenticeships (Crawford-Lee, 2019; Senior *et al.*, 2020) have very real potential to consolidate this trend (see also CMI, 2023).



**FIGURE 6: Marginal returns to qualifications as compared against individuals holding any qualification one level lower i.e. the Level 4+ returns are being compared against individuals who hold Level 3 qualifications.**

Source: data derived from McIntosh & Morris, 2016.

Category	Qualification	Marginal return (%)
Level 4+	BTEC Higher National Diploma (HND)	14.020
	NVQ-4	10.679
	NVQ-5	9.895
Level 3	BTEC National Diploma (BTEC)	23.973
	NVQ-3	12.658
	GNVQ Advanced	18.423
Level 2	BTEC First Diploma	7.753
	NVQ-2	-4.673
	GNVQ Intermediate	2.378



## A road well-travelled?

As a final note, we wish to return to the assertion that Whitehall has 'poor levels of institutional memory' (Norris & Adam, 2017, p. 9). Following the De Ville Report (1986) National Vocational Qualifications were launched in the UK (excluding Scotland) as a framework for a set of occupation-specific qualifications. Five years on, qualifications with a broader skill offering - General NVQs or GNVQs (in current terminology, Occupational Progression qualifications) - were added to the NVQ family (Department for Education and Science, 1991).

While we are not suggesting that the categories of Occupational Entry and Occupational Progression qualifications are simply a modern manifestation of NVQs and GNVQs, the resemblance is notable, and we believe there must be useful insights we can identify from this period. This is particularly relevant given the complexity that prompted the most recent round of reviews and proposals for technical education reform arguably stemmed from this time, when the 'so-called jungle of pre-NCVQ qualifications [was]... replaced by an even denser and more impenetrable jungle of industry lead bodies in conjunction with a bureaucratically cumbersome, time-consuming and costly assessment system' (Hyland, 1996, p. 353).



“

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## Four foundational characteristics for sustainable technical education

With these various insights in mind, we have collated what we believe are **four foundational characteristics for a sustainable technical education offer**; an offer which learns from the past, can overcome Whitehall's purported technical education amnesia, and has the potential to become an attractive alternative to academic education:

### Qualifications must be known and understood.

This will involve streamlining and communicating the technical education offer to ensure that qualifications can be both recognised and understood by a range of stakeholders including policy makers, employers, tutors, students and parents/carers.



### Qualifications must be trusted and valued.

This will involve stilling the flux and allowing qualifications to bed in, build people's trust and confidence in them and perhaps most importantly in a world that increasingly reveres data and evidence, build value that can be tangibly measured.



### Qualification groupings and pathways must continue to be identified by their common KSBs.

These should reflect the core occupational skills that anyone wishing to work in a particular industry needs and form a backbone to which other skills can attach.



### Qualifications must create flexibility of skill, not dead ends<sup>3</sup>.

A focused set of wider employability skills in addition to the core KSB backbone provided by the occupational routes, would allow learners to build relevant additional skills which will keep opportunities open for them, whether in higher education or skilled employment. The balance of KSBs and wider skills could be used to define whether a qualification sits broadly within the occupational entry (focused) category or occupational progression (general) category.



Without these shifts in understanding, perception and practice it is likely that the commonly held belief, that A levels and undergraduate degrees provide the best and most flexible route to future success, will only continue and proliferate.

3. Wolf warned against creating a system that leads to 'dead ends' (2011, p.8).



## 04. Conclusions and recommendations

**H**aving established what we believe to be the four foundational characteristics of a successful future technical education system, we will now turn to some more concrete recommendations. We have chosen to provide these by education/qualification level, following the lead of the Social Mobility Commission (2023), in order to cut through and make sense of the complexity of the technical education and qualifications landscape.

Whilst we have made the case in this paper for a blend of general and specific skills, we still regard the mapping of technical qualifications onto occupational standards as a positive step, albeit if it avoids the duplication of apprenticeship provision. This is because previous VTQs often attempted to prepare learners to enter a sector or industry, even if that industry contained a wide variety of roles with contrasting skillsets. The use of occupational routes certainly allows us to build qualifications linked to jobs that share common core skills.

If we therefore allow ourselves the flexibility to move beyond one standard per qualification, we believe that the use of occupational standards can positively contribute to all of the four key foundational characteristics identified.

### Level 2

Assuming legacy VTQs are all defunded, learners will only have occupation specific options at Level 2 in the current model. We have argued in this paper that general skills remain an important aspect of technical education and have also provided evidence indicating that existing occupational entry routes such as NVQs have a lower labour market return for learners, when compared to more general qualifications like GNVQs. Moreover, Level 2 NVQs were found to have a negative return for learners (McIntosh & Morris 2016).

A further point to note is that a significant proportion of individuals who take Level 2 qualifications at age 17 do not progress any higher up the education qualification ladder. One year after completing a Level 2 qualification, the overall rate of progression to Level 3 for this group is only 39%, with a further 25% working towards further Level 2 qualifications (Hupkau *et al.*, 2016). This is further supported by Lupton *et al* (2021) who note how higher achieving students are more likely to progress relatively smoothly to A Levels, Level 3 vocational courses and some apprenticeships than lower attainers, who have often experienced additional barriers and blockages to progression at the Level 2 stage.

Given there is no systematic pattern of progression for those pursuing level 2 qualifications, it is vital that Level 2 technical qualifications keep learners' options open and offer both the prospect of transition to Level 3 whilst also holding labour market capital in their own right.

**We therefore recommend** that more generalist occupational progression qualifications are extended down to Level 2, offering learners the opportunity to gain a technical qualification that does not lead to one specific job.

### Level 3

In 2021, the Department for Education's announcement of the intention to remove funding from 2023-24 for Level 3 VTQs that significantly overlapped with T Levels, led to growing calls from educational providers for the protection of this established and respected set of qualifications (UVAC, 2024). Concerns were further compounded by the discussion of teething problems of the new T Level qualifications including: the perceived academic feel of the qualification, which was leading to fewer traditional technical learners wishing or able to study them; the resource-intensive nature of the assessment methods which led to concerns that providers would struggle to deliver them at scale, and the fact that some occupational specialisms had recruited extremely small numbers of learners, indicating they are neither educationally nor economically viable (Ofsted, 2023). In combination with the arrival of a new UK Government, these concerns led to plans to delay changes until the academic year 2025-26.

Evidence shows that current Level 3 VTQs (the first of which emerged in the 1980s) are not only accessible to a wide range of learners, particularly those from less advantaged backgrounds, but also can be delivered at scale and are now the most common type of vocational study at Level 3. Further, one in four of all higher education applicants in England (26%) studied at least one VTQ at Level 3 in 2016 (Gicheva & Petrie, 2018, p.6).

However, they are not without their challenges. As indicated earlier, the broad, diffuse content that is contained in some of the extant sector-based qualifications does not always develop meaningful workplace competencies. As with any large group of qualifications, the learner experience can be very variable, with some subject areas offering greater alignment to workplace learning than others.

Furthermore, it is interesting to note that 11.6% of students with VTQs at any level in the higher education entry cohort 2016/17, did not progress past their first year of an undergraduate degree. This is about double the attrition rate for students as a whole. Moreover, for the lowest attaining VTQ students the attrition rates are well above 15% (Wolf *et al.*, 2019: p.78). Arguably then, in their current form, VTQs appear to have some limitations which need to be addressed.

**We therefore recommend** that T Levels continue to be established as the technical qualification of choice, however:

- They should adopt some of the benefits that we can observe in established VTQ routes. Specifically, benefits around accessibility and scalability could be used and adapted to inform T Level design. In short, if T Levels cannot be scaled to meet demand, then they are unlikely to flourish, and could remain unnecessarily niche and specialist.
- They should cover all routes on the occupational map, particularly those that currently see large student demand like social care, protective services, and travel and tourism.
- The blanket policy of having only one occupational specialism in T Levels should be removed. Some occupational areas may benefit from a broader skills approach than others and this flexibility should be welcomed and championed. This would also remove the need to populate the landscape with other TOQs at level 3 which could, from experience to date, risk re-creating a two-tier system.





## Levels 4 and 5

As a clear attempt to address the 'missing middle' (Field, 2018), the HTQ brand is gathering momentum. However, our experience and discussions with HTQ providers indicate that the restrictive nature of mapping to individual occupational standards can lead to some broader skills - often those associated with undergraduate degree level learning - being missed. If we follow this through to its logical conclusion, qualifications based around one narrow occupational route could impede progression onto a number of less specialist or different Level 6 programmes. In turn, this could result in a number of 'dead end' or limited progression routes for those who wish to progress their learning or their career.

In 2024, the Open University<sup>4</sup> was advertising 72 Level 5 diplomas of higher education with only three approved as HTQs: Network Engineering, Software Development, and Nursing Associate Practice. We are therefore left with the question: where does this leave the other 69 in the eyes of employers and learners? Our communications and interactions with HTQ providers in the sector indicate that there is already a significant amount of confusion as to the role, scope and status of HTQs and whether a viable scale of delivery is possible.

**We therefore recommend** that the HTQ brand is extended to include both occupational entry and occupational progression technical qualifications. This will cover both specific and broader skills needs, as well as allowing more HTQs that have clear links to degree progression. The current mix of qualifications in this space - BTEC Higher National Certificates and Diplomas, Certificates of Higher Education, Diplomas of Higher Education, Foundation Degrees and so on - means that a partial inclusion of Level 4 and 5 technical qualifications in the HTQ brand can only add to current confusion and perceptions of complexity in the market. It may also inadvertently result in some qualifications having lower 'signalling value' (Field, 2024) than others. This has the very real potential to undermine some of the extensive work currently underway to develop and offer qualifications that address 'the missing middle'.



<sup>4</sup> See <https://www.open.ac.uk/courses/diplomas-he>

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**If we therefore allow ourselves the flexibility to move beyond one standard per qualification, we believe that the use of occupational standards can positively contribute to all of the four key foundational characteristics identified.**

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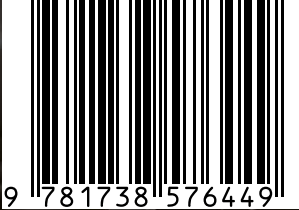




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